

AMENDMENTS TO THE SPECIFICATION:

Please amend the paragraph beginning at page 4, line 10, as follows:

It is another object of the present invention to provide a method for depositing a nitride film that is capable of depositing a nitride film with a ~~[[higher]]~~ greater thickness at the upper region thereof compared to those of the side regions or the lower region.

Please amend the paragraph bridging page 4, line 16 -- page 5, line 5, as follows:

In accordance with one aspect of the present invention, the above and other objects can be accomplished by the provision of a method for depositing a nitride film using a chemical vapor deposition apparatus of single chamber type comprising a process chamber comprising an inlet gas line through which process gases are introduced; a shower head for spraying the introduced process gases; a heater on which a wafer is placed; and a vacuum port for discharging the process gases, the method including: a first deposition step of depositing a first nitride film by performing a first nitride film deposition process while a mixture ratio of the ammonia ~~[[NH3]]~~ (NH₃) gas and the silane ~~[[SiH4]]~~ (SiH₄) gas, which are the process gases, injected in order to first deposit the nitride film is maintained ~~[[in]]~~ at 100:1 or more; and a second deposition step of depositing a second nitride film on a surface of the first nitride film in-situ by maintaining the mixture ratio of the ammonia gas and the silane gas ~~[[in]]~~ at 100:1 or less in order to secondly deposit the nitride film, after depositing the first nitride film, such that the nitride film has a higher thickness at the upper region of the nitride film compared to those of the side regions and the lower region thereof.

Please amend the paragraph beginning at page 8, line 4, as follows:

Fig. 6 is a view illustrating a deposited nitride film 40 when the mixture ratio of the ammonia and the silane is about 500:20 or more to about 2000:5 or less (② interval in Fig. 4).

As seen from the Figure, the nitride film is deposited with a ~~[[higher]]~~ greater thickness at the top of the contact hole compared to those of the sides thereof.

Please amend the paragraph beginning at page 8, line 8, as follows:

Fig. 7 is a view illustrating a deposited nitride film 50 when the ammonia and the silane are mixed with a mixture ratio of about 30: 20 or more to about 500: 20 or less (③ interval in Fig. 4). As seen from the Figure, the thickness of the nitride film at the top of the contact hole is much ~~[[higher]]~~ greater compared to those of others, which may cause an over-hang.

Please amend the paragraph beginning at page 10, line 4, as follows:

That is, the second nitride ~~[[films]]~~ film 118 is deposited so that the nitride film is formed with a ~~[[higher]]~~ greater thickness at the top of the second interlayer isolation film 112 compared to ~~[[those]]~~ that of the area of the contact hole 114 by maintaining the mixture ratio of the ammonia (NH₃) gas and the silane (SiH₄) gas to be 100:1 or less, while the semiconductor substrate 100, on which the first nitride film 116 has been deposited, is loaded on the heater 16.

Please amend the paragraph beginning at page 10, line 17, as follows:

Meanwhile, although not shown in the figure, in addition to the process of two steps as described above, the nitride film may be formed with a ~~[[higher]]~~ greater thickness at the top of the second interlayer isolation film 112 compared to others, even with a single process for depositing the nitride film by maintaining the mixture ratio of the ammonia gas and the silane gas to be 100:1 or less. In other words, it is possible to form the nitride film with a ~~[[higher]]~~ greater thickness at the top of the second interlayer isolation film 112 compared to the area of the contact hole 114 to be the structure as shown in Fig. 8d even with the single process.

Please amend the paragraph bridging page 10, line 25 -- page 11, line 4, as follows:

After the top area of the second interlayer isolation film 112 is thus deposited with the nitride film of the [[higher]] greater thickness as compared to the area of the contact hole 114, the contact portion (i.e., a bottom portion of the contact hole 114) is opened through [[the]] a dry etch so that the lower electrode 102 and the plug electrode 120 are electrically [[made]] in contact to each other, as in the conventional deposition method.

Please amend the paragraph beginning at page 11, line 5, as follows:

After this process, the contact hole 114 is completely filled by coating a conductive material onto the semiconductor substrate on which the nitride film has been deposited with a [[higher]] greater thickness at the top of the second interlayer isolation film 112 as shown in Fig. 8e. Thereafter, a plug electrode 120 contiguous to a lower landing pad is formed by carrying out a planarization process, such as a chemical mechanical polishing process or a blanket etching process. At this time, [[a]] damage [[of]] to the second interlayer isolation film 112 surrounding a bit line, upon the planarization process, can be prevented by the thick nitride film formed on the surface of the second interlayer isolation film.

Please amend the paragraph beginning at page 11, line 14, as follows:

Moreover, since the nitride film is deposited with a [[large]] greater thickness only at the top of the second interlayer isolation film 112, it ~~does not almost affect an~~ has essentially no effect on the aspect ratio of the contact hole, thereby forming a complete plug without generating a void.

Please amend the paragraph bridging page 11, line 19 -- page 12, line 3, as follows:

In the prior art, in case that a nitride film is to be formed with a [[higher]] greater thickness at the top of the second interlayer isolation film compared to others, the first nitride

film is first deposited using a thermal CVD apparatus having an excellent step coverage characteristic, and then the resultant substrate is moved into a plasma enhanced CVD apparatus to be subject to a process for depositing the second thick nitride film at the top of the second interlayer isolation film. Thus, there are problems that since the first nitride film is deposited and then resultant substrate is moved into another CVD apparatus, process delay and error rate increase ~~are arisen~~ arise and also two or more types of CVD apparatuses are needed.

Please amend the paragraph beginning at page 12, line 4, as follows:

However, in the present invention, the mixture ratio of the reaction gases is adjusted through one CVD apparatus of single chamber type. ~~It result that~~ As a result, after the first nitride film is formed, the second nitride film can be formed in-situ in the same CVD apparatus. Accordingly, error rate during the wafer movement can be reduced and ~~[[any]]~~ a separate CVD apparatus is not required, thereby decreasing a work space.

Please amend the paragraph beginning at page 12, line 10, as follows:

As described above, the present invention has advantages in that ~~[[--it]]~~ it can be carried out by simply adjusting a mixture ratio of the process gases using one chemical vapor deposition apparatus of single chamber type, and it is possible to manufacture a semiconductor device with a excellent quality, in which steps of the process are simplified and problems such as a thermal budget ~~is not arisen~~ do not arise. Here, because one chemical vapor deposition apparatus of single chamber type is used, there is no need for a LPCVD process of high temperature, resulting in a minimized thermal budget.

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